

## ILLUSTRATIONS.

altural engine, Taylor... register, Stoddard's... earth, Porter's... vehicle, Deisher's... vehicle, Firth's...

B

ener, Bradford's. .... ing holder, watch ag fastener. Bradford's.

alance spring bolder, watch.

alance it downer's.

alance it downer's.

alance it famber yeque

arcel, folding, Barkadale's.

asket, cotton, folding.

asket, blacket, spring.

alance it grader in the spring.

alance it grader in the spring.

asket in the spring in the spring

Calipers, vernier & microm...
Calipers, vernier & microm...
Caligraph, Wallis's...
Can opener, Stoddard's stodard's rystals
ucumber, sea, tenant of
ultivator, Bunch's.
ultivator, Burkett's.
ultivator, Cullum's.
ultivator, improved, Blake's.
ultivator, Taylor..

D Diseases and ferments...
Dog cart, Bowman's.
Dog cart, Congeyer's.
Dog cart, Bowman's.
Draught-regulator, Bisson's.
Draught-regulator, Bisson's.
Drawing-board, paper-holder.
Drawing-board, paper-holder.
Dries form, Fischer's.
Dries for firsts, Jovy's.
Drill, Bot, multiple spindle.
Dust pan, Moss's.
Dynamometer, Raffard's.

G Galvani, Luigi
tiali files of the oak
Gas exhauster, improved
Gas lap, Clamond's.
Gastap, Clamond's.
Gate, Farm, Nurbon's.
Gate, farm, Nurbon's.
Gate, farm, Nurbon's.
Gate, farm, Nurbon's.
Gate, improved, Decker's.
Gate, improved, Lukens's.
Gate, Marshall's dear-coupling for wagons.
Giffard, Henri.
Giass, furnace to flatten
Governor, dynamomet., Bot
Grate, stove, Brill's. 215 327 214 10 10 223 118 35 105 84 370 Ty's 54

Hammer, steam, Bell's
Hammer, steam, spring
Hand car, Sheffield section
Handle statch, for tilting chairs
Handle, paint-brush, Smith's
Hay loader, Meader's
Hay stacker, Wilson's
Heater for cars, Kirkpatrick's
Heater for cars, Kirkpatrick's
Heater, sad-iron, McDonald's
Hellering king, the
Herrings and herring pikes
Herrings and herring pikes
Herrings and herring pikes
Herrings and herring pikes
Herrings and herring his
Herrings Horse, Ale's
Horse-collar, Bhopell
Horse-collar, Bhopell
Horse-power, Hrewer's
Horse-power, Hrewer's
House, a 14-story English
Houses, new old-fashioned
Howel and croze, Sessoms's
Hub-block boring mach., Reid's H 

1 loe-cutting machine, Sager's... 47
Ice machinery, Pictet... 353, 366
Ice machine, Pictet, Small... 131
Ice, microscop, examination... 71
Injector, the binary... 18
Injector, the binary... 18
Injector, the Giffard... 133
Insect trap, Waddy's... 230
Investions, ancient and modrn. 402
Investions, ancient and modrn. 402
Iron-planer, Nat. Pundolo... 252
Iron-planer, Nat. Pundolo... 300
Irrigatingsitch, Mellvoy's... 301

J Jabiru of Senegal, the 151 K

L

Key-ring, Meiendy's

. M

Mars, planet, recent discov. in. 7
Marsh-wren, nest of ... 17
Marsh-wren, nest of ... 16
Marsh-wren, nest of ... 16
Mile-can lock, Horton's ... 82
Mills-can lock, Horton's ... 82
Mills or dart snake ... 15
Mill dog, Carley's ... 249
Motion, photography of ... 16
Motor, rarefled air ... 85
Motor and thrasher connection ... 18
Moving-machine seat, Fulton's ... 11

N Needles, show case for, Roeder's, Nut lock for screws, new...... Nut tapping mach., Durreli's.... 201 18 8 0

Oil can, St. Pierre's.... Opium, manufacture of... Ore separator, Henwood's. Organ beliows mechanism Oven thermometer,... P

Seat, counter, for stores.

Seed farm, Bloomsdale.

Seed planter, Bunch.

Shelps, Decomming, Slanker's.

Sharks, economic value of.

Shears, pruning, Slanker's.

Ships, power wheel for.

Ships, power wheel for.

Ships, power wheel for.

Ships, war, Fronch and English.

Show case forder, Rocches.

Show case forder.

S

T

Tag. animal, Queen's.
Telegraphs, train, coupling.
Telephone, Herz's system.
Telephone, mechanical.
Telescope. Frinceton, new.
Telescope. Trinceton, new.
Telescope. Trinceton, new.
Thil coupling, Monid's.
Trimble of the stopper.
Trace carrier, Downing's.
Trap, animal, Hamilton's.
Trap, animal, Hamilton's.
Trap, animal, Hamilton's.
Tricycle coller skates.
Tricycle, steam, Ferreanx's
Tricycle, ateam, Ferreanx's
Tricycle observations.
Tricycle observations. 393 312 50 421 205 215 233 312 67 105 201 400 296 291 152 345 264 359 147 87

U Umbrella covers, Lockling's..... Unipolar machine, Siemen's..... Uppers, rules in the cutting of...

 $\mathbf{v}$ 

W 

Z Zebra, a new species of, ......... 108

MISCELLANY.

Figures preceded by a star (\*) refer to illustrated articles. A

Apteryx, the
Aqueduct, Washington, arch.
Aroic colonies, relief for the
Arisons high bridge
Arisons high bridge
Arisons high bridge
Arow, an. In blue prec
Ashestos as an insulator
Asbestos fire shield, trial
Ash in dour
Aropine and daturine, react.
Auger, earth, Porter's.
Aurora, a recent.
Aurora heard by telephone
Auroral phenomena
Ausable chasm, the
Australia, gum. trees of.
Azle, vehicle, Firth a.
Azle, vehicle, Firth a.
Azle, vehicle, Brith a.

B Bacteria, tenacity of life 8
Bacteria, tubercular, polson for 773
Bag fastener, Bradford's 725
Baking powder, a new 113
Baking powder, a new 125
Baking powder, a new 126
Baking peres, Boomer's 721
Baking peres, Boomer's 722
Baking peres, Boomer's 722
Baking peres, Boomer's 722
Baking peres, Boomer's 723
Baking peres, Boomer's 723
Baking peres, Boomer's 723
Baking peres, Boomer's 723
Baking peres, Boomer's 724
Baking peres, Boomer's 724
Baking peres, Boomer's 725
Baking peres, Boomer's 725
Boomer

pleases and ferments | 158
Doc, crit (Bowman's | 158
Doc secure, Crongeyer's | 158
Doc secure, Cro

Cars, hesier for, Kirkpatrick's Cars, hesier for, Kirkpatrick's Cars, hesier for, Kirkpatrick's Cars, hesier for, Kirkpatrick's Cars, hesier, England Am. comp. 577 Car, wheels, Straight tread. 494 Cars, town of the company of the c

D

Dandolo, Italian ironclad.

Daniry interests of Italy.

Daniry interests of Italy.

Description of the property of the pead of isoning. 32

Drainage and typhold in Paris. 399

prop. 32

Drainage operations, Florida. 399

Prop. 320

Drainage, pneumatic 166

Pish, tile. 399

Prop. 320

Drainage, pneumatic 166

Pish, tile. 399

Prop. 320

Dyeing leather
Dynamite, breaking iron with
Dynamic-electric, mach, Sheric
Dynamo-electric machine, neDynamo, Levett-Mulier
Dynamometer, Raffard's
Dynamometer, gov'ns, Bourry
Dynamometric gov'ns, Bourry
Dysentery, aconite in

Earth vibrations
Earth vibrations
Earth vibrations
Earth's evolution, new view of.
Econ, now to stop.
Economy and durability comp.
Economy and antiquities.
Economy and antiquities.
Economy and durability comp.
Economy and antiquities.
Economy antiquities.
Economy and antiquities.
Economy and antiquities.
Economy antiquities.
Economy an

## Explosives from her | Fabrics | F

SCIENTIFIC AMERICAN

SCIENTIFICATION

SCIENTIFIC AMERICAN

SCIENTIFIC AMERICAN

SCIENTIFIC AM

Tin cana, etc., old, new use for. 2
Trin foil, lead in, detection. 16:
Trin foil, lead in, detection. 17:
Trin foil in foil in

